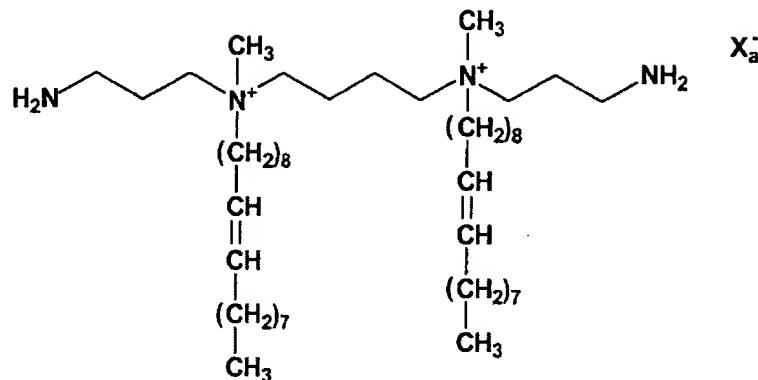


Listing of the claims

1-9. (Canceled)

10. (Currently Amended) A [The] compound [as claimed in claim 9, which is] having the formula:



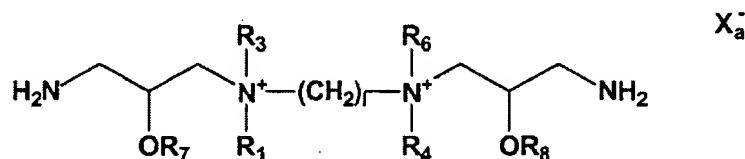
wherein

X^- is a physiologically acceptable anion;

a is the number of anions which is equal to the number of positive charges in the compound divided by the valence of the anion.

11. (Canceled)

12. (Currently Amended) A compound [as claimed in claim 5, wherein said compound has] having the formula:



wherein

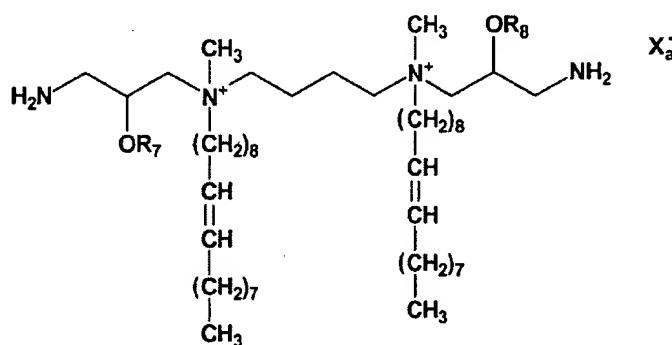
X^- is a physiologically acceptable anion;
 a is the number of anions which is equal to the number of positive charges in the
compound divided by the valence of the anion;

R_1 , R_3 , R_4 , and R_6 , independently of one another, are selected from the group consisting of a C_1 - C_8 alkyl, alkenyl, alkynyl, aryl, and alkyl wherein any one of R_1 , R_3 , R_4 , and R_6 are optionally substituted by one or more of an alcohol, an amine, an amide, an ether, a polyether, a polyamide, an ester, a mercaptan, a urea, a thiourea, a guanidyl, or a carbamoyl group, and at least two of R_1 , R_3 , R_4 , and R_6 , are a straight chain, [or] branched, or cyclic [,] alkyl, alkynyl, alkenyl or aryl group having from about 8 to about 24 carbon atoms attached to each N and R_1 , R_3 , R_4 and R_6 may optionally be covalently linked with each other;

R_7 and R_8 are independently H or a carbohydrate; and

1 is an integer from 1 to about 4.

13.(Previously Presented) The compound as claimed in claim 12, which is:

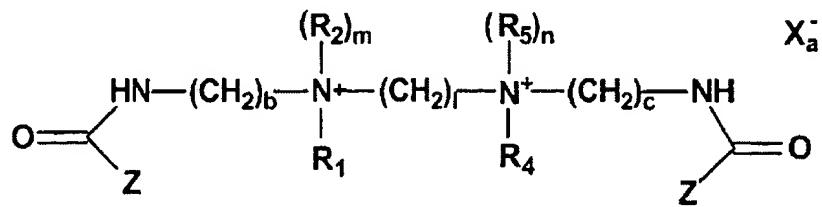


wherein R_7 and R_8 are independently H or a carbohydrate.

14.(Previously Presented) The compound as claimed in claim 13, wherein R_7 and R_8 are H.

15. (Canceled)

16.(Currently Amended) A [The] compound [as claimed in claim 5, wherein said compound has] having the formula:



wherein

R₁, R₂, R₄ and R₅, independently of one another, are selected from the group consisting of H and a C₁-C₈ alkyl, alkenyl, alkynyl, aryl, and alkyl optionally substituted by one or more of an alcohol, an amine, an amide, an ether, a polyether, a polyamide, an ester, a mercaptan, a urea, a thiourea, a guanidyl, or a carbamoyl group, and at least two of R₁, R₂, R₄ and R₅ are a straight chain, [or] branched, or cyclic [,] alkyl, alkenyl, alkynyl or aryl group having from about 8 to about 24 carbon atoms attached to each N;

Z is selected from the group consisting of spermiyl, spermidyl, amino acid, peptidyl, diaminoalkyl, and polyamine;

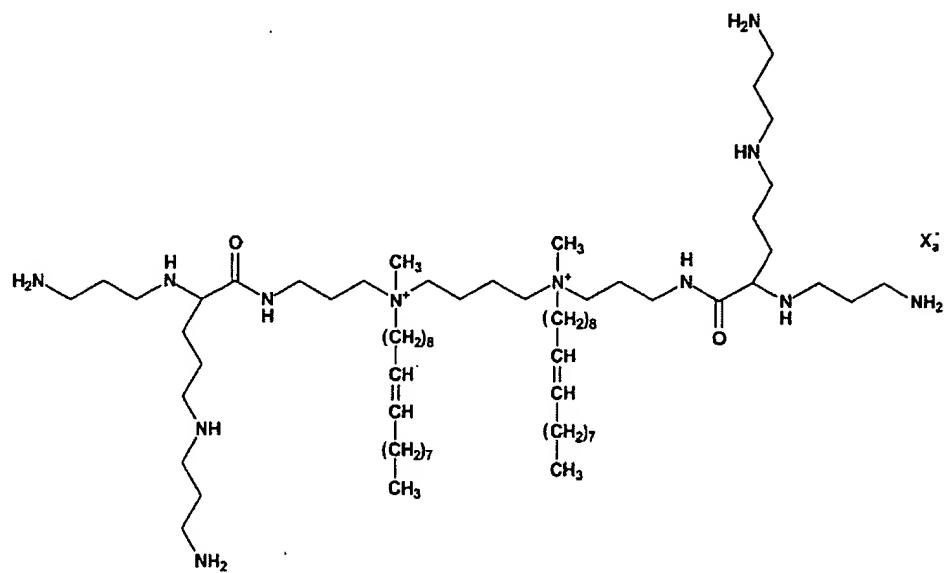
X⁻ is a physiologically acceptable anion;

m and n are 0 or 1;[and]

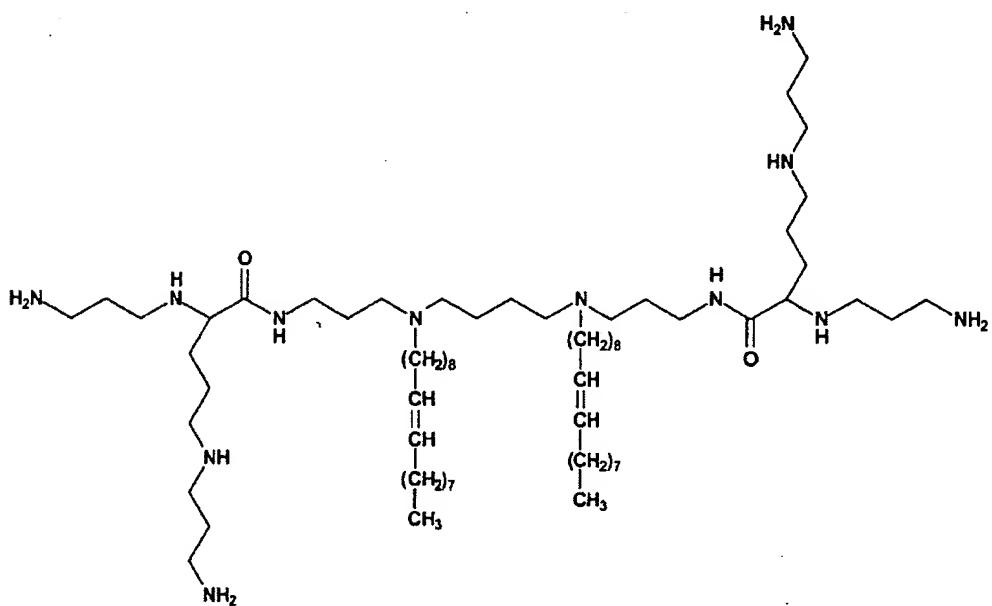
1, b and c are integers independently selected from 1 to about 4; and

a is the number of positive charges in the compound divided by the valence of the anion.

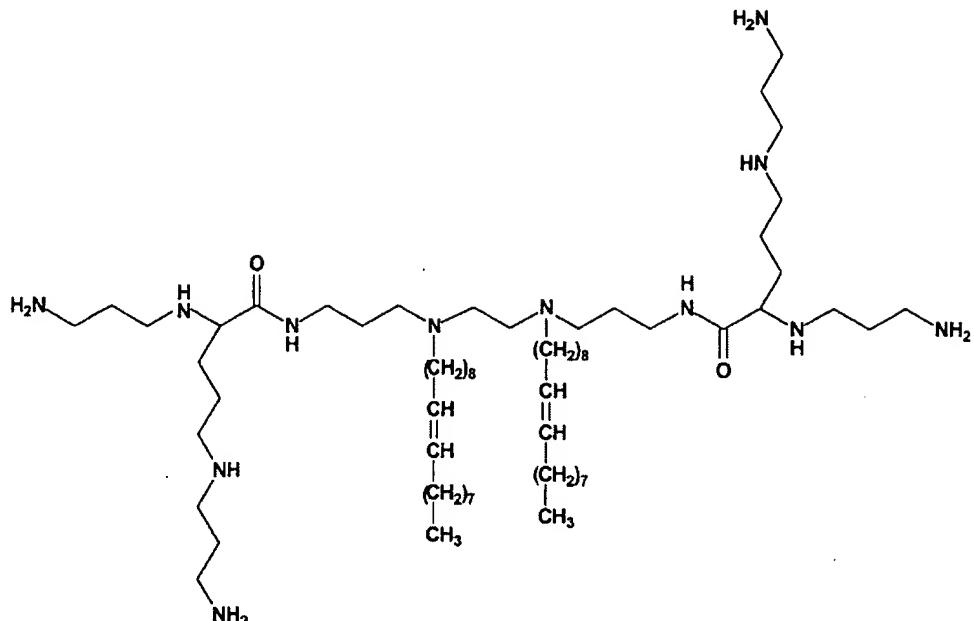
17.(Previously Presented) The compound as claimed in claim 16, which is:



18.(Previously Presented) The compound as claimed in claim 16, which is:

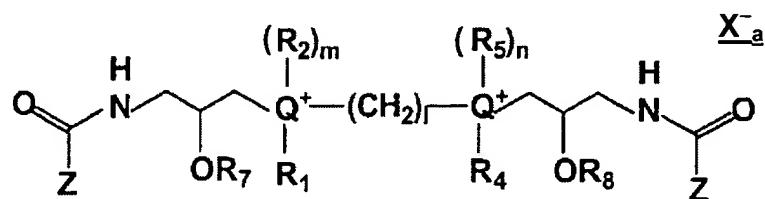


19. (Previously Presented) The compound as claimed in claim 16, which is:



20. (Canceled)

21. (Currently Amended) [The] A compound [as claimed in claim 20, wherein the compound has] having the formula:



wherein

Q [as defined in claim 1] is N;

X^- is a physiologically acceptable anion;
 a is the number of anions which is equal to the number of positive charges in the
compound divided by the valence of the anion;

R_1 and R_4 independently of one another, are selected from the group consisting of
 H , $-(CH_2)_p-D-Z$, an alkyl, an alkenyl, an aryl, and an alkyl or alkyl ether optionally
substituted by one or more of an alcohol, an aminoalcohol, an amine, an amide, an ether,
a polyether, a polyamide, an ester, a mercaptan, an alkylthio, a urea, a thiourea, a
guanidyl, or a carbamoyl group, R_1 and R_4 may optionally be covalently linked with each
other, to form a cyclic moiety; at least one of R_1 and R_4 is a straight-chain, [or] branched,
or cyclic [,] alkyl, alkenyl, alkynyl or aryl group having from 8 to about 24 carbon atoms;

R_2 and R_5 , independently of one another, are selected from the group consisting of
 H and a C_1-C_8 alkyl, alkenyl, alkynyl, aryl, and alkyl optionally substituted by one or more
of an alcohol, an amine, an amide, an ether, a polyether, a polyamide, an ester, a
mercaptan, a urea, a thiourea, a guanidyl, or a carbamoyl group;

Z is selected from the group consisting of spermiyl, spermidyl, aminoacid,
peptidyl, diaminoalkyl, and polyamine;

D is N, O, S, or a bond;

R_7 and R_8 independently are H or a carbohydrate;

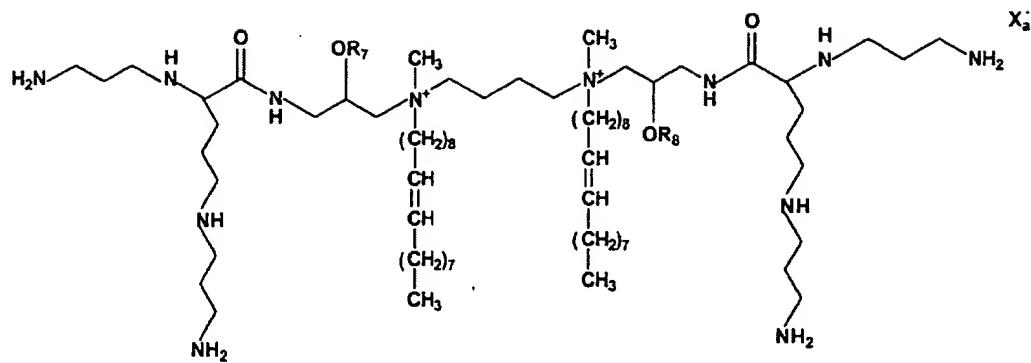
m and n are [as defined in claim 1] 0 or 1, when m is 1, the Q bonded to R_2 is
positively charged and when n is 1 the Q bonded to R_5 is positively charged; [and]

1 is an integer selected from 1 to about 4; and

p is an integer from 1 to about 10.

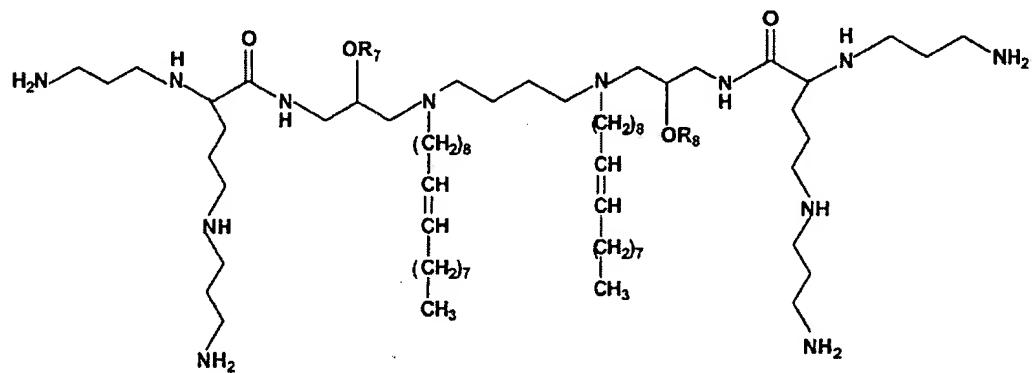
22.(Currently amended) The compound as claimed in claim 21 wherein [Q is N and]
 R_7 and R_8 are H.

23.(Previously Presented) The compound as claimed in claim 21 which is:



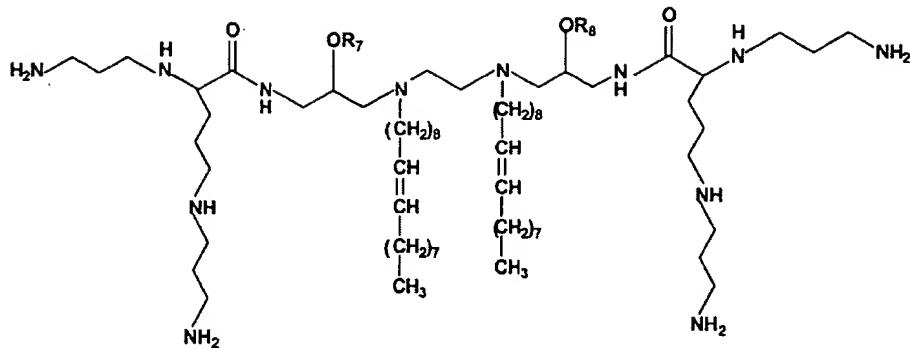
24.(Previously Presented) The compound according to claim 23, wherein R₇ and R₈ are H.

25.(Previously Presented) The compound according to claim 21, which is



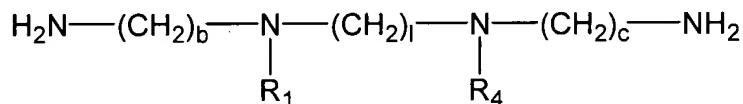
26.(Previously Presented) The compound as claimed in claim 25, wherein R₇ and R₈ are H.

27.(Previously Presented) The compound as claimed in claim 21, which is



28.(Previously Presented) The compound as claimed in claim 27, wherein R₇ and R₈ are H.

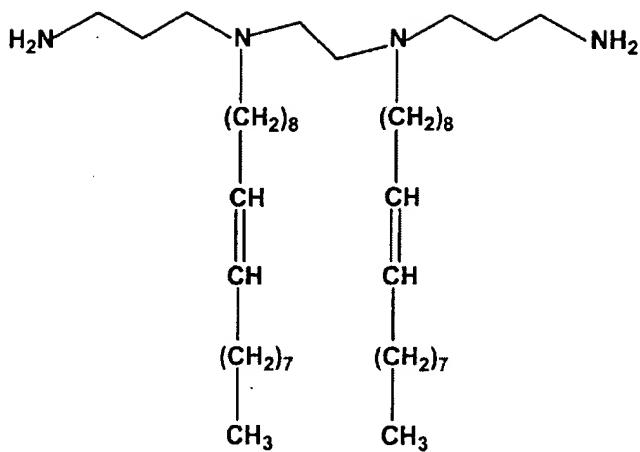
29.(Currently Amended) A compound of the formula:



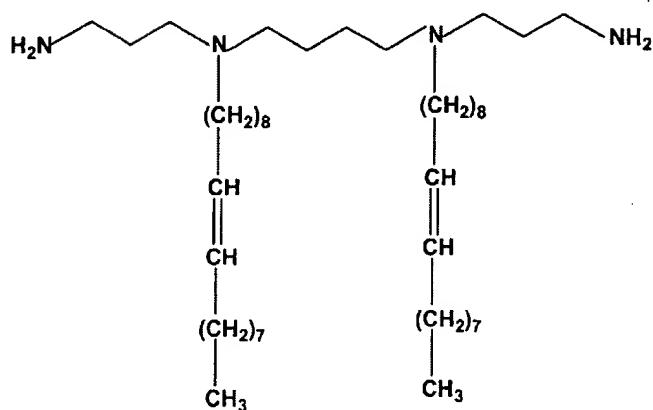
wherein

each of R₁ and R₄ is [a straight chain or branched, cyclic, alkenyl, alkynyl or aryl group having from about 8 to about 24 carbon atoms] a -(CH₂)₈-CH=CH-(CH₂)₇-CH₃ group; and l, b, and c are integers independently selected from 1 to about 4.

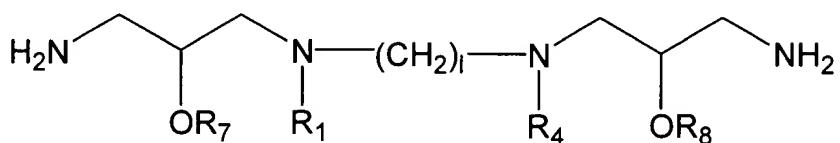
30.(Previously Presented) The compound as claimed in claim 29, which is:



31.(Previously Presented) The compound as claimed in claim 29, which is:



32.(Currently Amended) [The] A compound [as claimed in claim 5, wherein said compound has] having the formula:



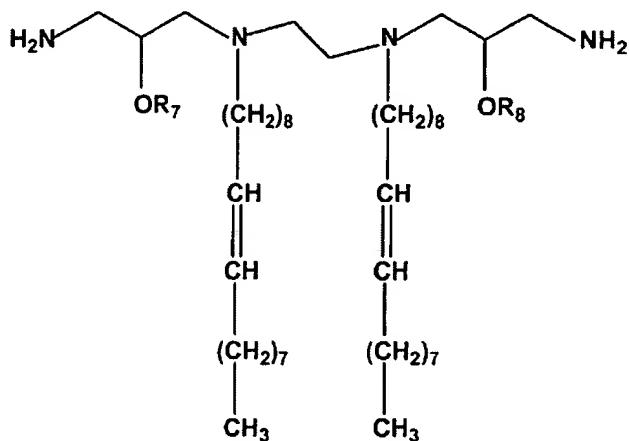
wherein

each of R₁ and R₄ is a straight-chain, [or] branched, or cyclic [,] alkenyl, alkynyl or aryl groups having from about 8 to about 24 carbon atoms;

R₇ and R₈ are independently H or a carbohydrate; and

l is an integer independently selected from 1 to 4.

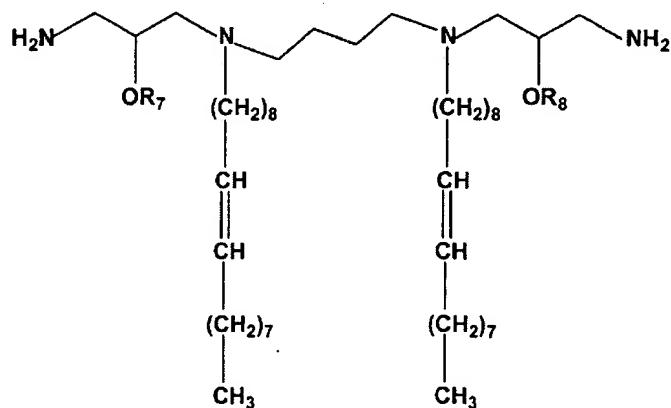
33.(Previously Presented) The compound as claimed in claim 32, which is:



wherein R₇ and R₈ are independently H or a carbohydrate.

34.(Previously Presented) The compound as claimed in claim 33, wherein R₇ and R₈ are H.

35. (Previously Presented) The compound as claimed in claim 32, which is:

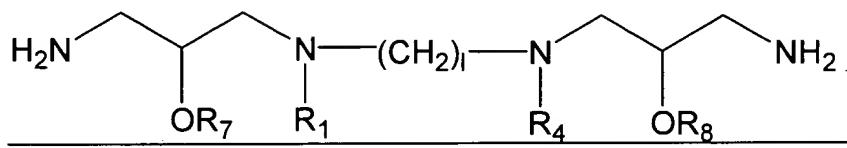


wherein R₇ and R₈ are independently H or a carbohydrate.

36.(Previously Presented) The compound as claimed in claim 35, wherein R₇ and R₈ are H.

37. (Canceled)

38.(Currently Amended) A [The] compound [as claimed in claim 37] having the formula:



wherein

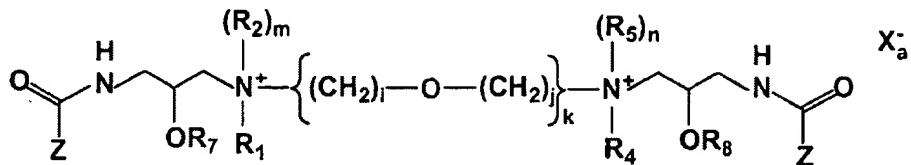
1 is 4,

R₁ and R₄ are straight-chain alkyl groups having 14 or 16 carbon atoms, and R₇ and R₈ are independently selected from H or a carbohydrate.

39.(Canceled)

40.(Currently amended) The compound as claimed in claim [39] 38, wherein R₇ and R₈ are both H.

41.(Currently Amended) [The]A compound [as claimed in claim 1, wherein said compound has] having the formula:



wherein

Z is [as definded in claim 5] selected from the group consisting of amine, spermiyl, carboxyspermiyl, guanidyl, spermidinyl, putricinyl, diaminoalkyl, pyridyl, piperidinyl, pyrrolidinyl, polyamine, amino acid, peptide and protein;

D is Q or a bond;
p is an integer from 1 to about 10;
R₁ and R₄, independently of one another, are selected from the group consisting of H, -(CH₂)_p-D-Z, an alkyl, an alkenyl, an aryl, an alkynyl, and an alkyl or an alkyl ether wherein any one of R₁ and R₄ are optionally substituted by one or more of an alcohol, an aminoalcohol, an amine, an amide, an ether, a polyether, a polyamide, an ester, a mercaptan, an alkylthio, a urea, a thiourea, a guanidyl, or a carbamoyl group, R₁, and R₄ may optionally be covalently linked with each other to form a cyclic moiety; and at least one of R₁, and R₄ is a straight chain [or], branched, or cyclic [,]alkyl, alkenyl, alkynyl or aryl group having from 8 to about 24 carbon atoms; and

R₂ and R₅, independently of one another, are selected from the groups consisting of H and a C₁-C₈ alkyl, alkenyl, alkynyl, aryl and alkyl optionally substituted by one or more of an alcohol, an amine, an amide, an ether, a polyether, a polyamide; an ester, a mercaptan, a urea, a thiourea, a guanidyl and a carbamoyl group;

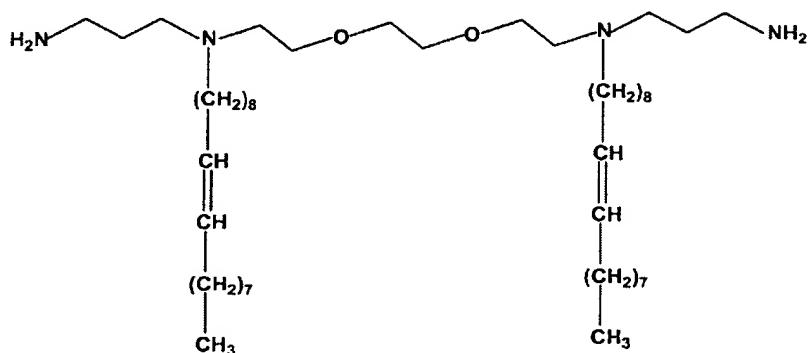
R₇ and R₈ are independently H or a carbohydrate;
X⁻ is a physiologically acceptable anion;
a is the number of positive charges in the compound divided by the valence of the anion;

m and n are 0 or 1;

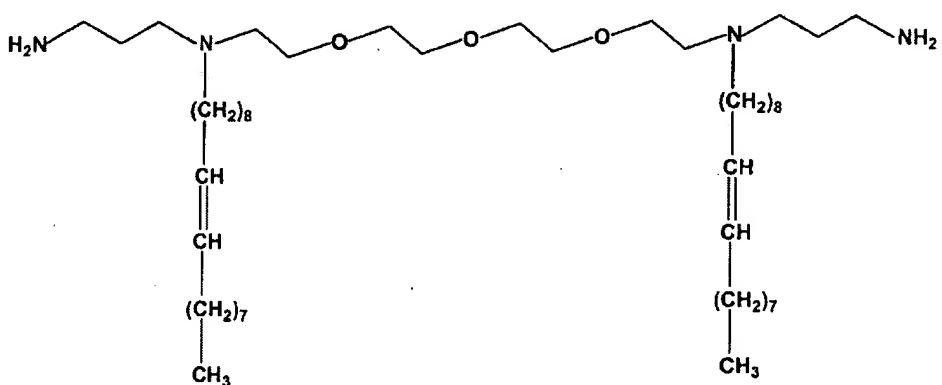
i and j are integers selected from 2 to about 3; and
k is an integer selected from 1 to about 3.

42. (Canceled)

43.(Currently Amended) A compound [as claimed in claim 42, which is]having the formula:

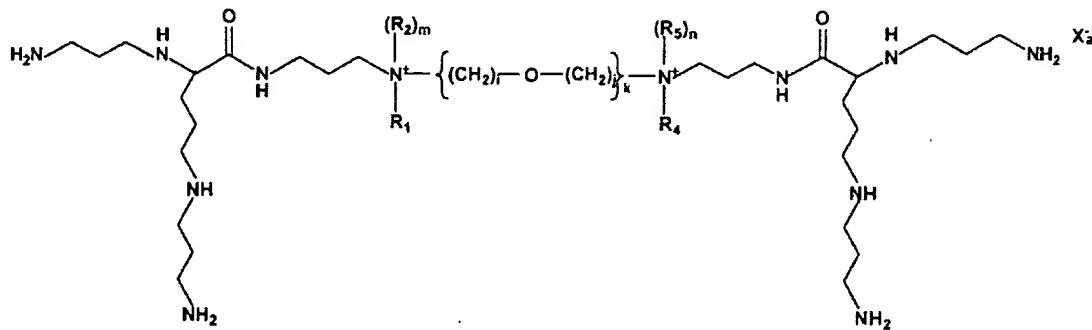


44.(Currently Amended) A [The] compound [as claimed in claim 42, which is]
having the formula:



45.(Canceled)

46.(Currently Amended) A compound [as claimed in claim 5, wherein said compound has] having the formula:



wherein

each of R₁ and R₄ is a straight chain, [or] branched, or cyclic, alkenyl, alkynyl or aryl group having from about 8 to about 24 carbon atoms;

R₂ and R₅, independently of one another, are selected from the group consisting of a C₁-C₈ alkyl, alkenyl, aryl, and alkyl optionally substituted by one or more of an alcohol, an amine, an amide, an ether, a polyether, a polyamide, an ester, a mercaptan, a urea, a thiourea, a guanidyl, or a carbamoyl group;

X⁻ is a physiologically acceptable anion;

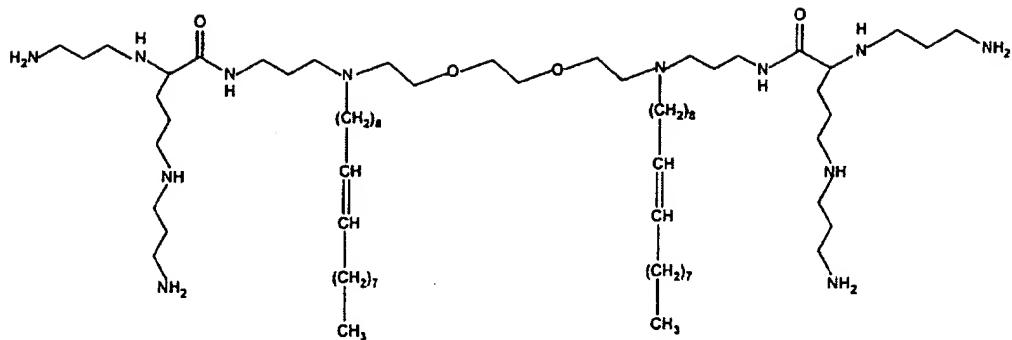
a is the number of positive charges in the compound divided by the valence of the anion;

m and n are 0 or 1, when m is 1, the N bonded to R₂ is positively charged and when n is 1, the N bonded to R₅ is positively charged;

i and j are integers selected from about 2 to about 3; and

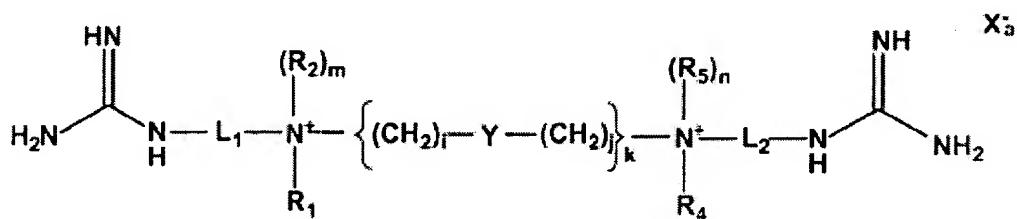
k is an [interger] integer selected from 1 to about 3.

47.(Previously Presented). The compound as claimed in claim 46, which is:



48.(Cancelled)

49. (Currently Amended) A [The] compound [as claimed in claim 5, wherein said compound has] having the formula:



wherein

each of R₁ and R₄ is a straight chain or branched, cyclic, alkenyl, alkynyl or aryl group having from about 8 to about 24 carbon atoms;

R₂ and R₅ independently of one another, are selected from the group consisting of a C₁ - C₈ alkyl, alkenyl, aryl, and alkyl optionally substituted by one or more of an alcohol, an amine, an amide, an ether, a polyether, a polyamide, an ester, a mercaptan, a urea, a thiourea, a guanidyl, or a carbamoyl group;

m and n are 0 or 1;

i and j are integers from about 2 to about 3;

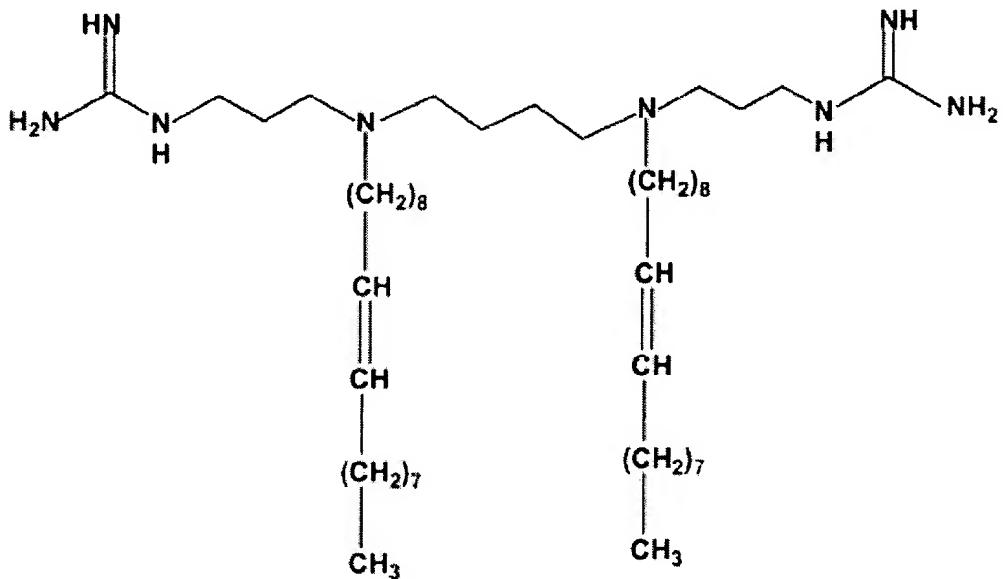
k is an integer from 1 to about 3;

L₁ and L₂, independently from one another, are an alkylene or an alkylene ether;

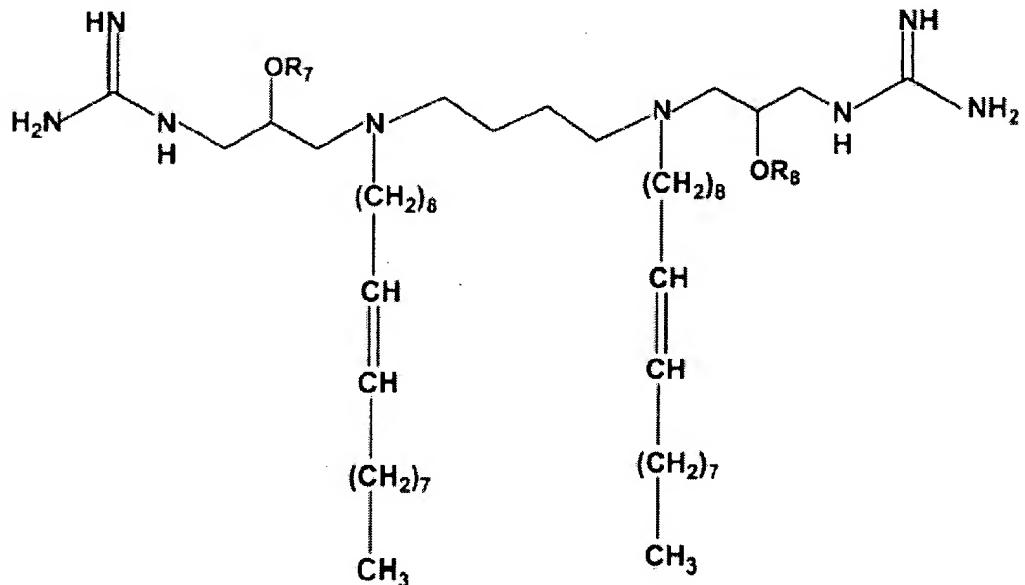
and

Y is selected from the group consisting of CH₂, O, S and NH.

50. (Previously Presented) The compound as claimed in claim 49, which is:



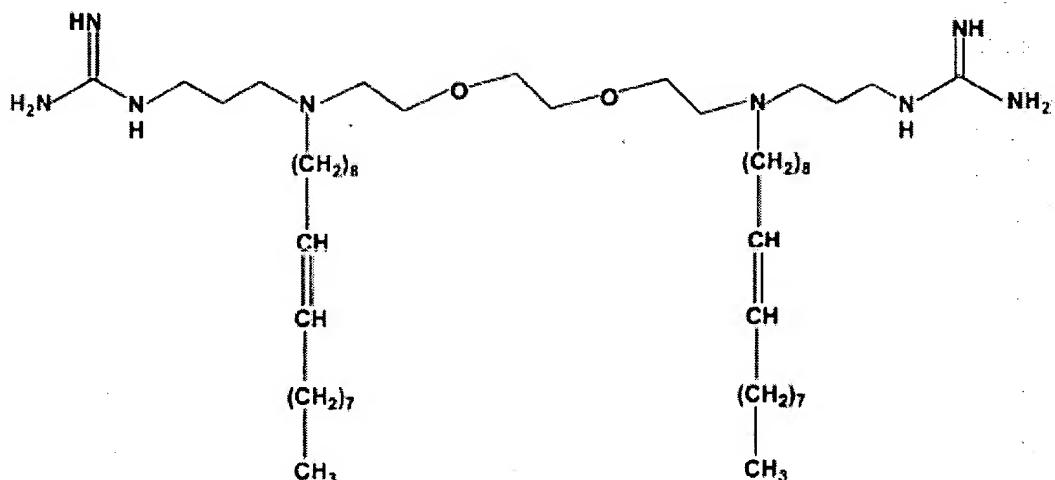
51. (Currently Amended) A [The] compound having the formula [as claimed in claim 49, which is]:



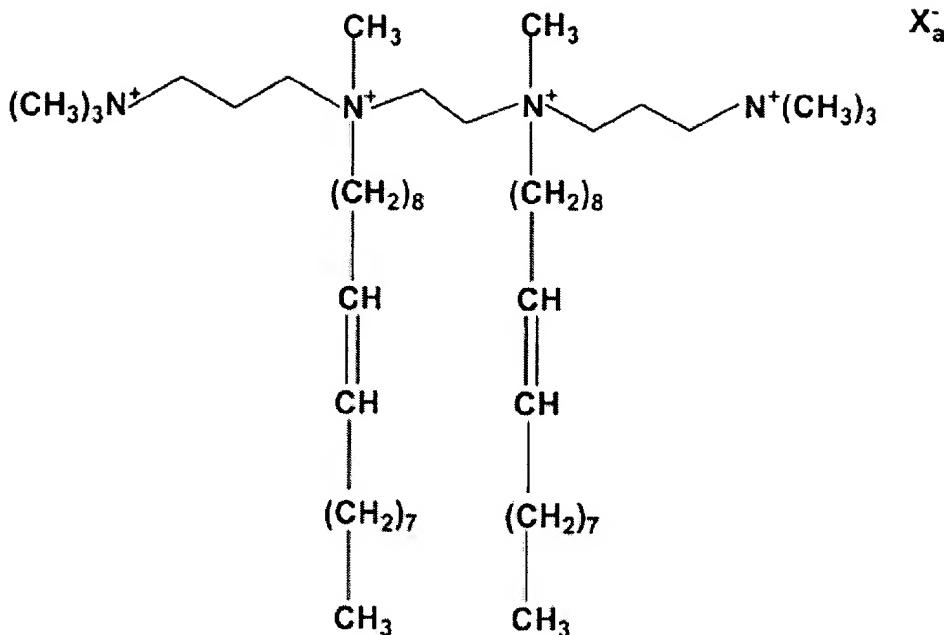
wherein R₇ and R₈ are independently H or a carbohydrate.

52. (Previously Presented) The compound as claimed in claim 51, wherein R₇ and R₈ are H.

53. (Currently Amended) A [The] compound having the formula [as claimed in claim 49, which is]:



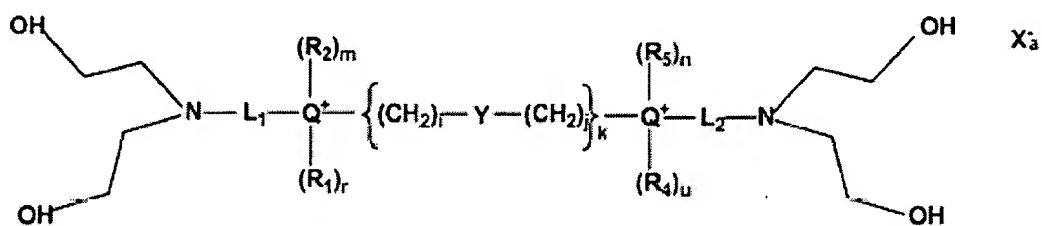
54. (Currently Amended) A [The] compound having the formula [as claimed in claim 5, which is]:



wherein

X⁻ is a physiologically acceptable anion; and
a is the number of positive charges in the compound divided by the valence of the
anion.

55. (Currently Amended) A [The] compound [as claimed in claim 1, wherein said compound has] having the formula:



wherein

Q is N [, R1, R4, r, u, m and n are as defined in claim 1];
X⁻ is a physiologically acceptable anion;
a is the number of anions which is equal to the number of positive charges in the
compound divided by the valence of the anion;
R1 and R4 independently of one another, are selected from the group consisting of
H, -(CH2)p-D-Z, an alkyl, an alkenyl, an aryl, and an alkyl or alkyl ether optionally

substituted by one or more of an alcohol, an aminoalcohol, an amine, an amide, an ether, a polyether, a polyamide, an ester, a mercaptan, an alkylthio, a urea, a thiourea, a guanidyl, or a carbamoyl group, R_1 and R_4 may optionally be covalently linked with each other, to form a cyclic moiety; at least one of R_1 and R_4 is a straight-chain, [or] branched, or cyclic [.] alkyl, alkenyl, alkynyl or aryl group having from 8 to about 24 carbon atoms;

R_2 and R_5 , independently of one another, are selected from the group consisting of H and a $C_1 - C_8$ alkyl, alkenyl, aryl, and alkyl optionally substituted by one or more of an alcohol, an amine, an amide, an ether, a polyether, a polyamide, an ester, a mercaptan, a urea, a thiourea, a guanidyl, or a carbamoyl group;

Z is selected from the group consisting of amine, spermiyl, spermidyl, carboxyspermiyl, guanidyl, spermidinyl, putricinyl, pyridyl, piperidinyl, pyrrolidinyl, aminoacid, peptidyl, diaminoalkyl, and polyamine;

D is N, O, S, or a bond;

i and j are integers from about 2 to about 3;

k is an integer from 1 to about 3;

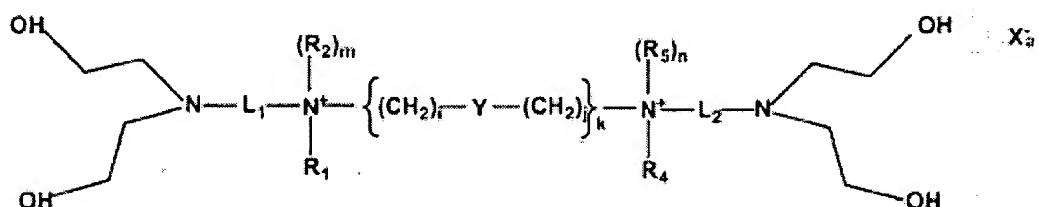
m , n , r and u are 0 or 1;

p is an integer from 1 to about 10;

L_1 and L_2 , independently from one another, are an alkylene or an alkylene ether; and

Y is selected from the group consisting of CH_2 , O, S and NH.

56. (Currently Amended) A [The] compound [as claimed in claim 5, wherein said compound has] having the formula:



wherein

X^- is a physiologically acceptable anion;

a is the number of positive charges in the compound divided by the valence of the anion;

[at least one of] R_1 and R_4 , independently of one another, are [is a] straight chain, [or] branched, or cyclic[,] alkyl, alkenyl, alkynyl or aryl groups having from about 8 to about 24 carbon atoms;

R_2 and R_5 , independently of one another, are selected from the group consisting of H and a $C_1 - C_8$ alkyl, alkenyl, aryl, and alkyl optionally substituted by one or more of an alcohol, an amine, an amide, an ether, a polyether, a polyamide, an ester, a mercaptan, a urea, a thiourea, a guanidyl, or a carbamoyl group;

m and n are 0 or 1;

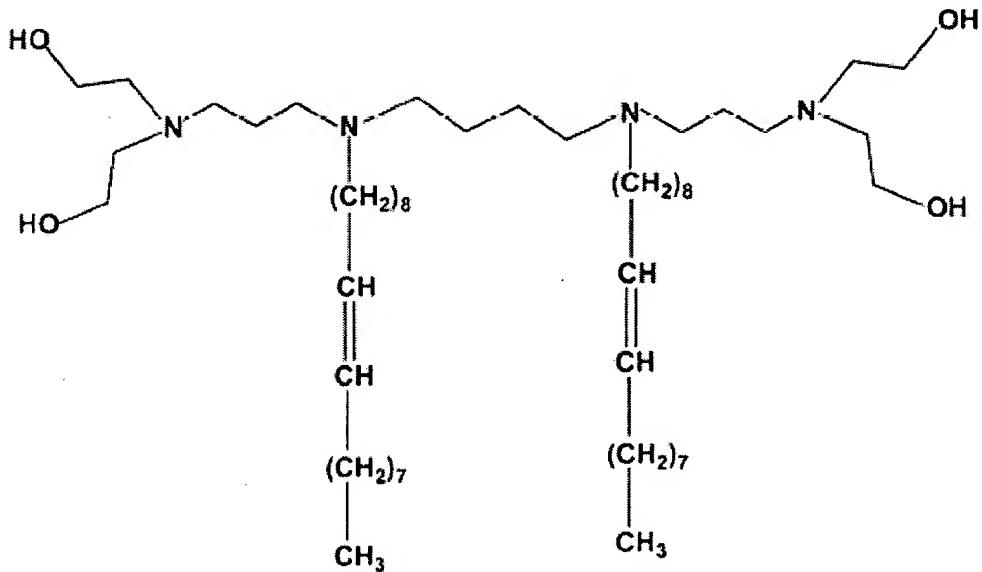
i and j are integers from about 2 to about 3;

k is an integer from 1 to about 3;

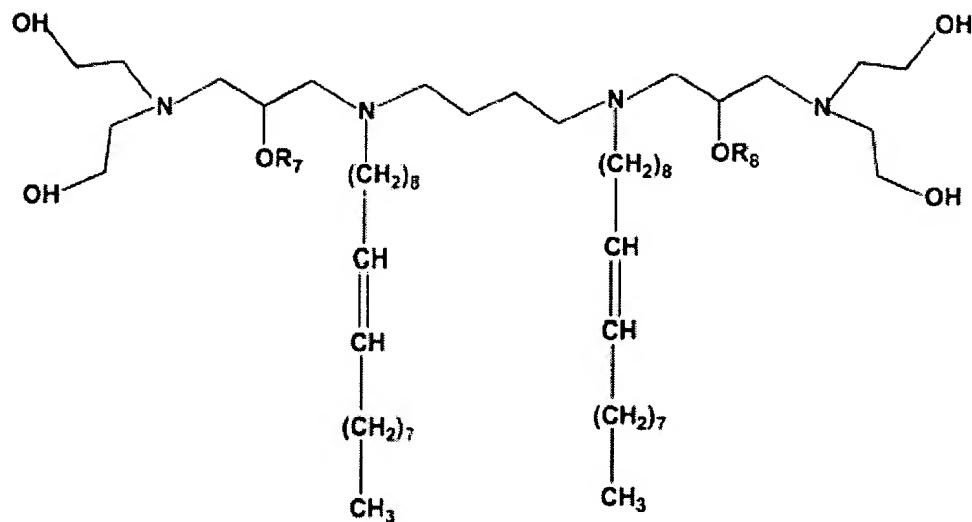
L_1 and L_2 independently from one another, are an alkylene or an alkylene ether; and

Y is selected from the group consisting of CH_2 , O, S and NH.

57.(Currently Amended) A [The] compound having the formula [as claimed in claim 56, which is]:



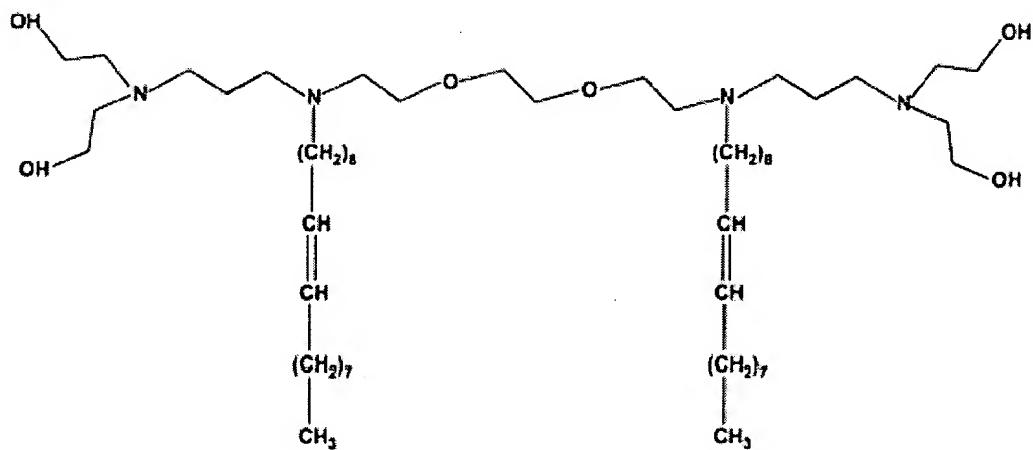
58. (Currently Amended) A [The] compound having the formula [as claimed in 56, which is]:



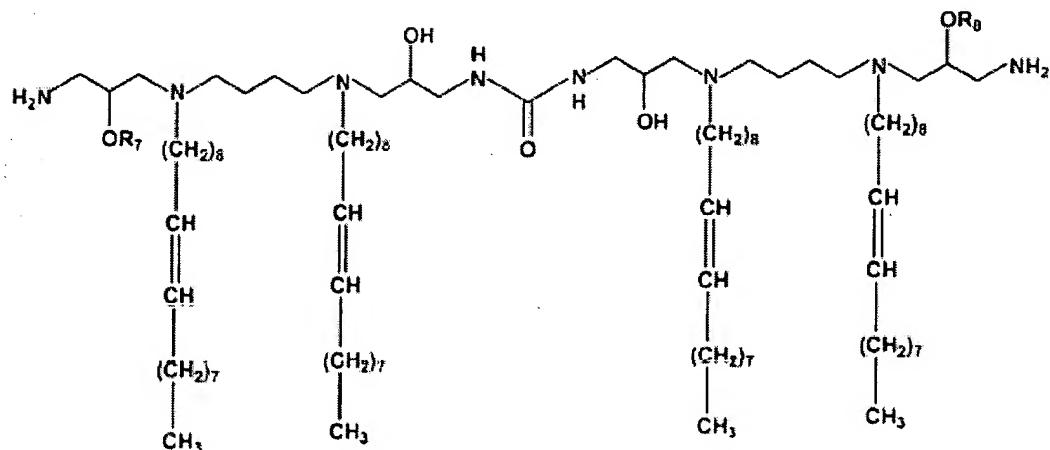
wherein R_7 and R_8 are independently H or a carbohydrate.

59. (Previously Presented) The compound as claimed in claim 58, wherein R_7 and R_8 are H.

60. (Currently Amended) A [The] compound having the formula [as claimed in 56, which is]:



61. (Currently Amended) A [The] compound having the formula [as claimed in claim 5, which is]:

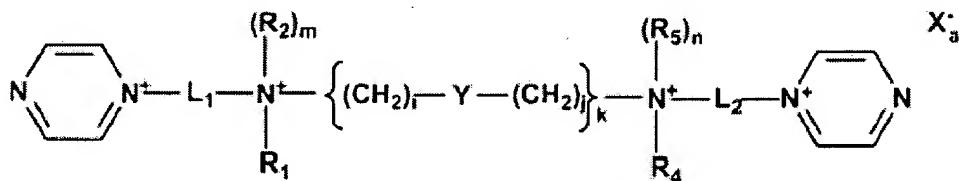


wherein R₇ and R₈ are independently H or a carbohydrate.

D
62. (Previously Presented) The compound as claimed in claim 61, wherein R₇ and R₈ are H.

63. (Canceled)

64. (Currently Amended) A [The] compound [as claimed in claim 5, wherein said compound has] having the formula:



wherein

X⁻ is a physiologically acceptable anion;

a is the number of positive charges in the compound divided by the valence of the anion;

each of R₁ and R₄ is a straight chain, [or] branched, or cyclic[,] alkenyl, alkynyl or aryl group having from about 8 to about 24 carbon atoms;

R₂ and R₅, independently of one another, are selected from the group consisting of a C₁ – C₈ alkyl, alkenyl, aryl, and alkyl optionally substituted by one or more of an alcohol, an amine, an amide, an ether, a polyether, a polyamide, an ester, a mercaptan, a urea, a thiourea, a guanidyl, or a carbamoyl group;

m and n are 0 or 1;

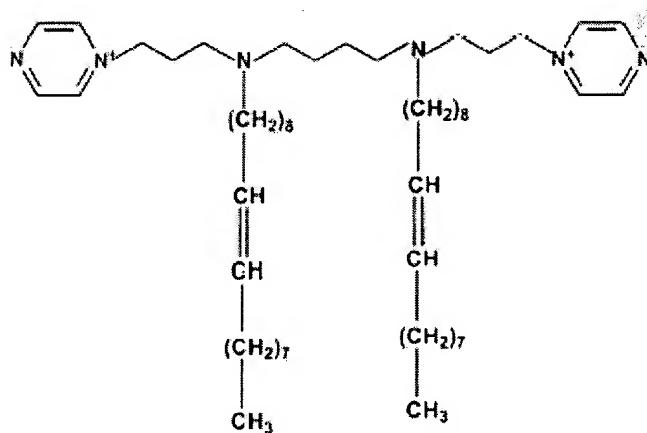
i and j are integers from about 2 to about 3;

k is an integer from 1 to about 3;

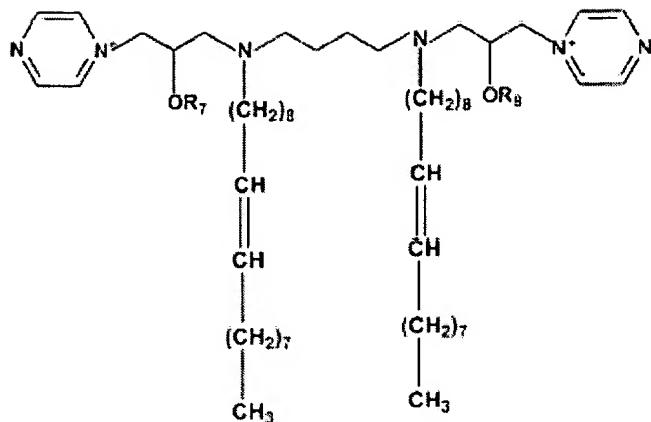
L₁ and L₂, independently from one another, are an alkylene or an alkylene ether; and

Y is selected from the group consisting of CH₂, O, S and NH.

65. (Previously Presented) The compound as claimed in claim 64, which is:



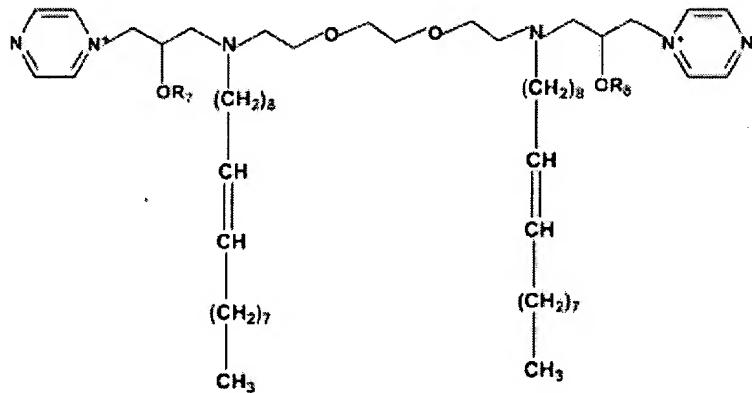
66.(Currently Amended) A [The] compound having the formula [as claimed in claim 64, which is]:



wherein R₇ and R₈ are independently H or a carbohydrate.

67. (Previously Presented) The compound as claimed in claim 66, wherein R₇ and R₈ are H.

68.(Currently Amended) A [The] compound having the formula [as claimed in claim 64, which is]:

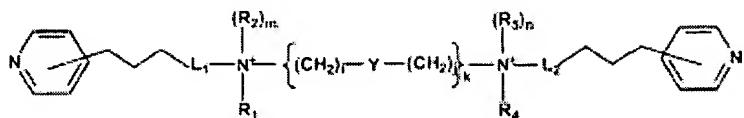


wherein R₇ and R₈ are independently H or a carbohydrate.

69. (Previously Presented) The compound as claimed in claim 68, wherein R₇ and R₈ are H.

70.(Canceled)

71.(Currently Amended) A [The] compound [as claimed in claim 5, wherein said compound has] having the formula:



wherein

each of R₁ and R₄ is a straight chain, [or] branched, or cyclic[,] alkenyl, alkynyl or aryl group having from about 8 to about 24 carbon atoms;

R₂ and R₅, independently of one another, are selected from the group consisting of a C₁ – C₈ alkyl, alkenyl, aryl, and alkyl optionally substituted by one or more of an alcohol, an amine, an amide, an ether, a polyether, a polyamide, an ester, a mercaptan, a urea, a thiourea, a guanidyl, or a carbamoyl group;

m and n are 0 or 1;

i and j are integers from about 2 to about 3;

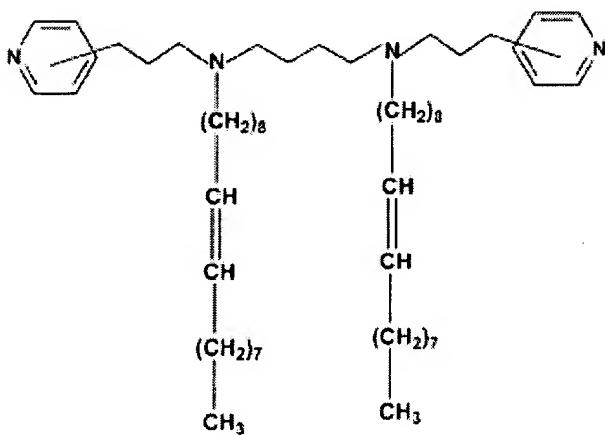
k is an integer from 1 to about 3;

L₁ and L₂ independently from one another, are an alkylene or an alkylene ether;

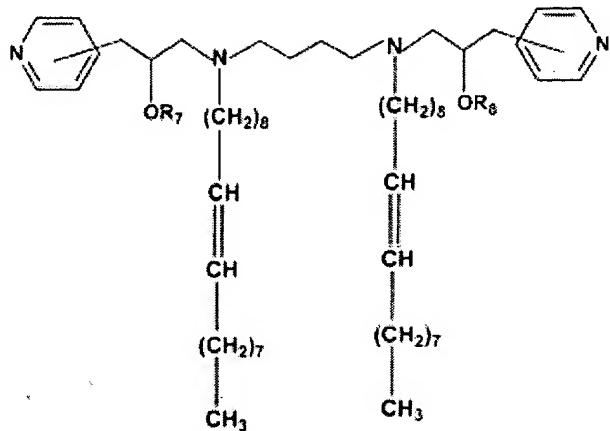
and

Y is selected from the group consisting of CH₂, O, S and NH.

72. (Previously Presented) The compound as claimed in claim 71, which is:



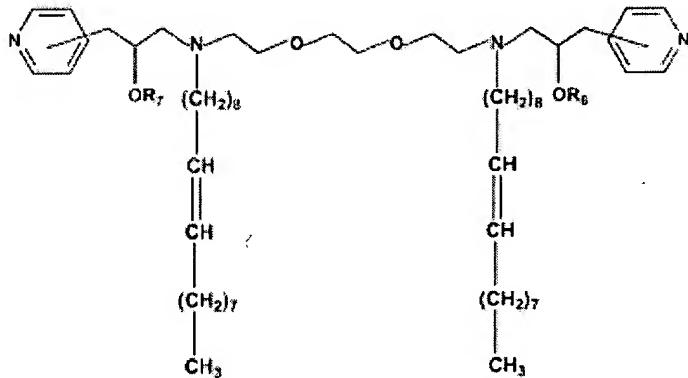
73. (Currently Amended) A [The] compound having the formula [as claimed in claim 71, which is]:



wherein R₇ and R₈ are independently H or a carbohydrate.

74. (Previously Presented) The compound according to claim 73, wherein R₇ and R₈ are H.

75. (Currently Amended) A [The] compound having the formula [as claimed in claim 71, which is]:

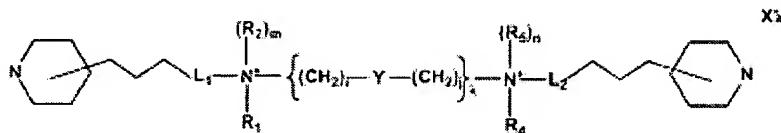


wherein R₇ and R₈ independently are H or a carbohydrate.

76. (Previously Presented) The compound as claimed in claim 75, wherein R₇ and R₈ are H.

77.(Cancelled)

78. (Currently Amended) A [The] compound [as claimed in claim 5, wherein said compound has] having the formula:



wherein

X^- is a physiologically acceptable anion;

a is the number of positive charges in the compound divided by the valence of the anion;

each of R_1 and R_4 is a straight chain, [or] branched, or cyclic[,] alkenyl, alkynyl or aryl group having from about 8 to about 24 carbon atoms;

R_2 and R_5 independently of one another, are selected from the group consisting of a $C_1 - C_8$ alkyl, alkenyl, aryl, and alkyl optionally substituted by one or more of an alcohol, an amine, an amide, an ether, a polyether, a polyamide, an ester, a mercaptan, a urea, a thiourea, a guanidyl, or a carbamoyl group;

m and n are 0 or 1;

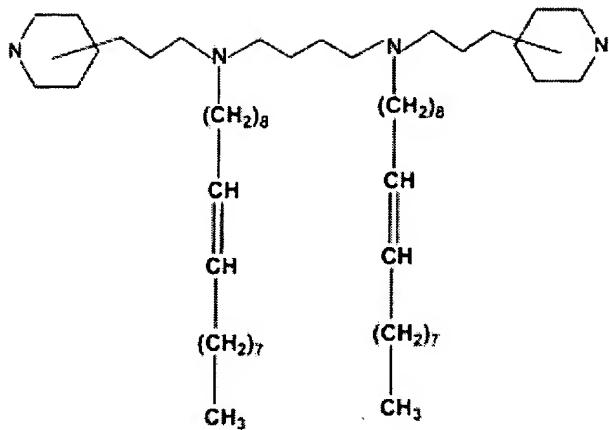
i and j are integers from about 2 to about 3;

k is an integer from 1 to about 3;

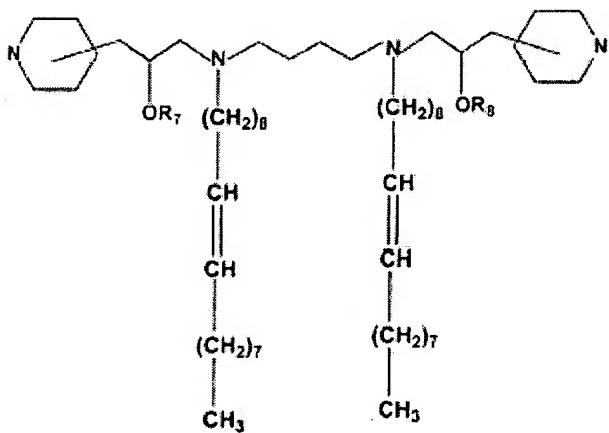
L_1 and L_2 , independently from one another, are an alkylene or an alkylene ether; and

Y is selected from the group consisting of CH_2 , O , S and NH .

79. (Currently Amended) A [The] compound having the formula [as claimed in claim 78, which is]:



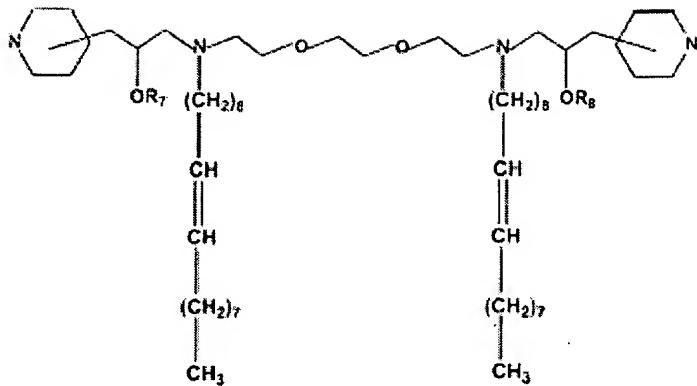
80.(Currently Amended) A [The] compound having the formula [as claimed in claim 5, which is]:



wherein R₇ and R₈ are independently H or a carbohydrate.

81. (Previously Presented) The compound as claimed in claim 80, wherein R₇ and R₈ are H.

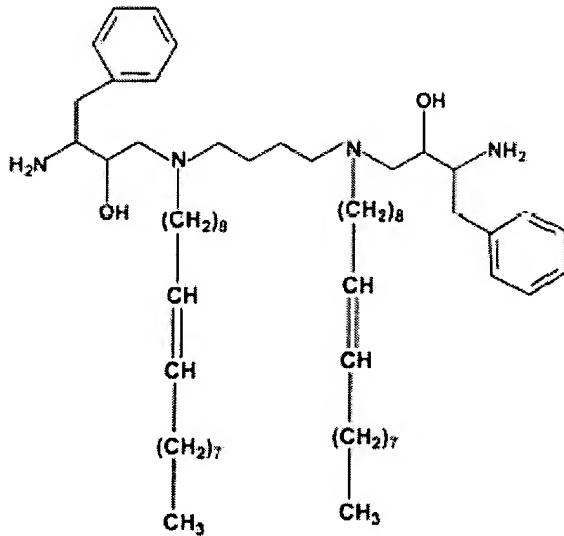
82.(Currently Amended) A [The] compound having the formula [as claimed in claim 5, which is]:



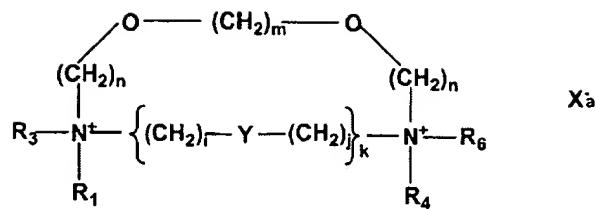
wherein R₇ and R₈ are independently H or a carbohydrate.

83. (Previously Presented) The compound as claimed in claim 82, wherein R₇ and R₈ are H.

84. (Currently Amended) A [The] compound having the formula [as claimed in claim 5, which is]:



85. (Currently Amended) A compound having the formula:



wherein

X^- is a physiologically acceptable anion;

a is the number of positive charges in the compound divided by the valence of the anion;

Y is selected from the group consisting of CH_2 , an ether, a polyether, an amide, a polyamide, an ester, a sulfide, a urea, a thiourea, a guanidyl, a carbamoyl, a carbonate, a phosphate, a sulfate, a sulfoxide, an imine, a carbonyl, and a secondary amino group and wherein Y is optionally substituted by $-\text{X}_1-\text{L}'-\text{X}_2-\text{Z}$ or $-\text{Z}$;

R_1 , R_3 , R_4 , and R_6 , independently of one another, are selected from the group consisting of H, $-(\text{CH}_2)_p-\text{D}-\text{Z}$, an alkyl, an alkenyl, an aryl, an alkynyl, and an alkyl or an alkyl ether wherein any one of R_1 , R_3 , R_4 , and R_6 are optionally substituted by one or more of an alcohol, an aminoalcohol, an amine, an amide, an ether, a polyether, a polyamide, an ester, a mercaptan, an alkylthio, a urea, a thiourea, a guanidyl, or a carbamoyl group, and at least one of R_1 , R_3 , R_4 , and R_6 is a straight chain [or], branched, or cyclic [,] alkyl, alkenyl, alkynyl or aryl group having from 6 to about 64 carbon atoms; and R_1 , R_3 , R_4 , and R_6 may optionally be covalently linked with each other or with Y, to form a cyclic moiety;

Z is selected from the group consisting of amine, spermiyl, carboxyspermiyl, guanidyl, spermidinyl, putricinyl, diaminoalkyl, pyridyl, piperidinyl, pyrrolidinyl, polyamine, amino acid, peptide, and protein;

X_1 and X_2 , independently of one another, are selected from the group consisting of NH, O, S, alkylene, and arylene;

L' is selected from the group consisting of alkylene, alkenylene, alkynylene, arylene, alkylene ether, and polyether;

D is O, S, or a bond;

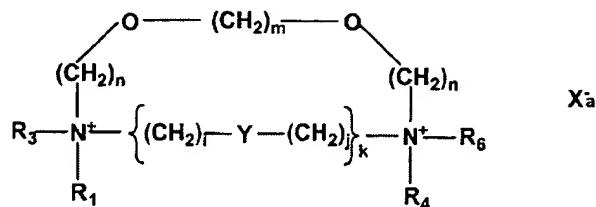
m and n are 0 or 1; and
i, j, k, l and p are integers from 1 to about 10.

86.(Currently amended) The compound as claimed in claim 85, wherein at least one of R₁ and R₄ is a straight chain [or] branched, or cyclic [,] alkyl, alkenyl, alkynyl or aryl group having from about 8 to about 24 carbon atoms.

87.(Previously Presented) The compound as claimed in claim 85, wherein the alkyl ether optionally substituted by one or more alcohol groups is a carbohydrate.

88.(Previously Presented) The compound as claimed in claim 87, wherein the carbohydrate is selected from the group consisting of galactose, fructose, glucose, maltose, sucrose, cellobiose, lactose, mannose, glucopyranose, mannopyranose and galactopyranose.

89.(Currently Amended) The compound as claimed in claim 85, wherein [said compound has the formula:



wherein]

Y is selected from the group consisting of CH_2 , an ether, a polyether, an amide, a polyamide, an ester, a sulfide, a urea, a thiourea, a guanidyl, a carbamoyl, a carbonate, and a secondary amino group, [;

R₁, R₃, R₄, and R₆, independently of one another, are selected from the group consisting of H, $-(\text{CH}_2)_p-\text{Z}$, an alkyl, an alkenyl, an aryl, and an alkyl or an alkyl ether optionally substituted by one or more of an alcohol, an aminoalcohol, an amine, an amide, an ether, a polyether, a polyamide, an ester, a mercaptan, a urea, a thiourea, a guanidyl, or a carbamoyl group, and at least one of R₁, R₃, R₄, and R₆ is a straight chain

or branched, cyclic, alkyl, alkenyl, alkynyl or aryl group having from about 6 to about 64 carbon atoms; and R₁, R₃, R₄, and R₆ may optionally be covalently linked with each other, to form a cyclic moiety;

Z is selected from the group consisting of amine, spermiyl, carboxyspermiyl, guanidyl, spermidinyl, putricinyl, diaminoalkyl, pyridyl, piperidinyl, pyrrolidinyl, polyamine, amino acid, peptide, and protein;

m and n are 0 or 1; and

i, j, k, l and p are integers from 1 to about 10.]

90.(Currently amended) The compound as claimed in claim 89, wherein at least one of R₁ and R₄ is a straight chain [or], branched, or cyclic [,] alkyl, alkenyl, alkynyl or aryl group having from about 8 to about 24 carbon atoms.

91.(Previously Presented) The compound as claimed in claim 89, wherein the alkyl ether optionally substituted by one or more alcohol groups is a carbohydrate.

92.(Previously Presented) The compound as claimed in claim 91, wherein the carbohydrate is selected from the group consisting of galactose, fructose, glucose, maltose, sucrose, cellobiose, lactose, mannose, glucopyranose, mannopyranose and galactopyranose.

93-100. (Canceled)

101.(Currently Amended) A composition comprising one or more compounds of any one of claims 12, 16, 21, 32, [1, 37,] 38, 41, 46, [48,] 49, 55, 56, [61,] 64, 71, 75, 78, 85, 89 and 111 [, 93, 95, and 97].

102.(Currently Amended) A composition comprising one or more compounds of any one of claims 12, 16, 21, 32, [1, 37,] 38, 41, 46, [48,] 49, 55, 56, [61,] 64, 71, 75, 78, 85, 89 and 111 [, 93, 95, and 97] and at least one additional component selected from the

group consisting of a cell, cells, a cell culture, a cell culture media, a neutral lipid, a nucleic acid, and a transfection enhancer.

103.(Canceled)

104.(Currently Amended) A lipid aggregate comprising one or more compounds of any one of claims 12, 16, 21, 32, [1, 37,] 38, 41, 46, [48,] 49, 55, 56, [61,] 64, 71, 75, 78, 85, 89 and 111 [, 93, 95, and 97].

105.(Canceled)

106.(Canceled)

107.(Currently Amended) A kit comprising one or more compounds of any one of claims 12, 16, 21, 32, [1, 37,] 38, 41, 46, [48,] 49, 55, 56, [61,] 64, 71, 75, 78, 85, 89 and 111 [, 93, 95, and 97] and at least one additional component selected from the group consisting of a cell, cells, a cell culture medium, a nucleic acid, a transfection, enhancer and instructions for transfecting a cell or cells.

108.(Currently Amended) A method for introducing a polyanion into a cell or cells, said method comprising forming a lipid aggregate [liposome] from a positively charged compound of any one of claims 12, 16, 21, 32, [1, 37,] 38, 41, 46, [48,] 49, 55, 56, [61,] 64, 71, 75, 78, 85, 89 and 111 [, 93, 95, and 97], contacting the lipid aggregate [liposome] with a polyanion to form a positively-charged polyanion-lipid aggregate [liposome] complex and incubating the complex with a cell or cells.

109.(Currently Amended) A method for introducing a biologically active substance into a cell, said method comprising forming a lipid aggregate [liposome] of a compound of any one of claims 12, 16, 21, 32, [1, 37,] 38, 41, 46, [48,] 49, 55, 56, [61,] 64, 71, 75, 78, 85, 89 and 111 [, 93, 95, and 97] and a biologically active substance and incubating the lipid aggregate [liposome] with a cell or cell culture.

110.(Canceled)

111.(Currently Amended) A [The] compound [as claimed in claim 93,] which is:

N^1,N^4 -dipalmitolyl- N^1,N^4 -di-[2-hydroxy-3-(N-aminopropyl)]-diaminobutane;
 N^1,N^4 -distearyl- N^1,N^4 -di-[2-hydroxy-3-(N-aminopropyl)]-diaminobutane;
 N^1,N^4 -dilauryl- N^1,N^4 -di-[2-hydroxy-3-(N-aminopropyl)]-diaminobutane;
 N^1,N^2 -dimyristyl- N^1,N^2 -di-[2-hydroxy-3-(N-aminopropyl)]-diaminoethane;
 N^1,N^2 -dipalmityl- N^1,N^2 -di-[2-hydroxy-3-(N-aminopropyl)]-diaminoethane;
 N^1,N^2 -dipalmitolyl- N^1,N^2 -di-[2-hydroxy-3-(N-aminopropyl)]-diaminoethane;
 N^1,N^2 -distearyl- N^1,N^2 -di-[2-hydroxy-3-(N-aminopropyl)]-diaminoethane;
 N^1,N^2 -dilauryl- N^1,N^2 -di-[2-hydroxy-3-(N-aminopropyl)]-diaminoethane;
 N^1,N^8 -dimyristyl- N^1,N^8 -di-[2-hydroxy-3-(N-aminopropyl)]-Jeffamine;
 N^1,N^8 -dipalmityl- N^1,N^8 -di-[2-hydroxy-3-(N-aminopropyl)]-Jeffamine;
 N^1,N^8 -dipalmitolyl- N^1,N^8 -di-[2-hydroxy-3-(N-aminopropyl)]-Jeffamine;
 N^1,N^8 -distearyl- N^1,N^8 -di-[2-hydroxy-3-(N-aminopropyl)]-Jeffamine;
 N^1,N^8 -dilauryl- N^1,N^8 -di-[2-hydroxy-3-(N-aminopropyl)]-Jeffamine;
 N^1,N^8 -dioleyl- N^1,N^8 -di-[2-hydroxy-3-(N-aminopropyl)]-Jeffamine;
 N^1,N^4 -dimyristyl- N^1,N^4 -di-[2-hydroxy-3-(N-sperminecarboxamido)-aminopropyl]-diaminobutane;
 N^1,N^4 -dipalmityl- N^1,N^4 -di-[2-hydroxy-3-(N-sperminecarboxamido)-aminopropyl]-diaminobutane;
 N^1,N^4 -dipalmitolyl- N^1,N^4 -di-[2-hydroxy-3-(N-sperminecarboxamido)-aminopropyl]-diaminobutane;
 N^1,N^4 -distearyl- N^1,N^4 -di-[2-hydroxy-3-(N-sperminecarboxamido)-aminopropyl]-diaminobutane;
 N^1,N^4 -dilauryl- N^1,N^4 -di-[2-hydroxy-3-(N-sperminecarboxamido)-aminopropyl]-diaminobutane;
 N^1,N^8 -dimyristyl- N^1,N^8 -di-[2-hydroxy-3-(N-sperminecarboxamido)-aminopropyl]-Jeffamine;

D | N^1,N^8 -dipalmityl- N^1,N^8 -di-[2-hydroxy-3-(N-sperminecarboxamido)-aminopropyl]-Jeffamine;

N^1,N^8 -dipalmitoyl- N^1,N^8 -di-[2-hydroxy-3-(N-sperminecarboxamido)-aminopropyl]-Jeffamine;

N^1,N^8 -distearyl- N^1,N^8 -di-[2-hydroxy-3-(N-sperminecarboxamido)-aminopropyl]-Jeffamine;

N^1,N^8 -dilauryl- N^1,N^8 -di-[2-hydroxy-3-(N-sperminecarboxamido)-aminopropyl]-Jeffamine;

N^1,N^8 -dioleyl- N^1,N^8 -di-[2-hydroxy-3-(N-sperminecarboxamido)-aminopropyl]-Jeffamine;

N^1,N^2 -dimyristyl- N^1,N^2 -di-[2-hydroxy-3-(N-sperminecarboxamido)-aminopropyl]-diaminoethane;

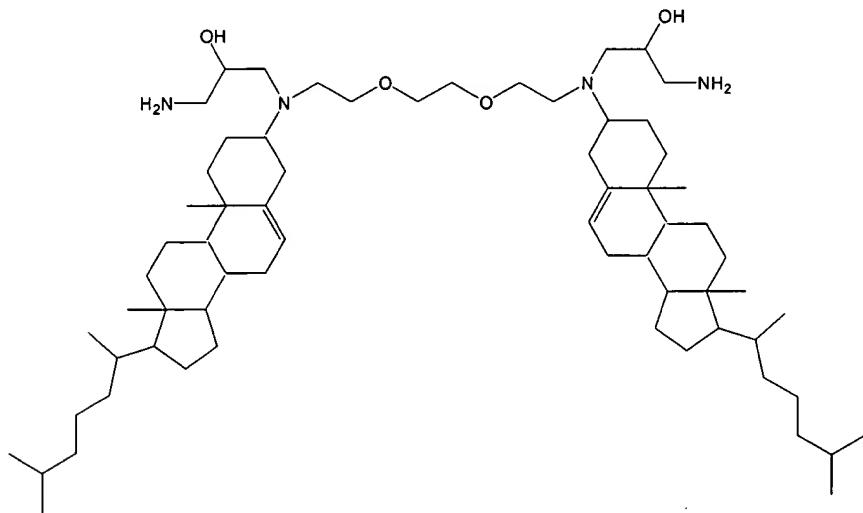
N^1,N^2 -dipalmityl- N^1,N^2 -di-[2-hydroxy-3-(N-sperminecarboxamido)-aminopropyl]-diaminoethane;

N^1,N^2 -dipalmitoyl- N^1,N^2 -di-[2-hydroxy-3-(N-sperminecarboxamido)-aminopropyl]-diaminoethane;

N^1,N^2 -distearyl- N^1,N^2 -di-[2-hydroxy-3-(N-sperminecarboxamido)-aminopropyl]-diaminoethane; or

N^1,N^2 -dilauryl- N^1,N^2 -di-[2-hydroxy-3-(N-sperminecarboxamido)-aminopropyl]-diaminoethane.

112.(Currently Amended) A [The] compound [as claimed in claim 93,] which is:



113.-116. (Cancelled)

117.(New) A composition comprising one or more compounds of any one of claims 12, 16, 21, 32, 38, 41, 46, 49, 55, 56, 64, 71, 75, 78, 85, 89 and 111 and at least one additional lipid aggregating compound.

118.(New) A composition comprising one or more compounds of any one of claims 12, 16, 21, 32, 38, 41, 46, 49, 55, 56, 64, 71, 75, 78, 85, 89 and 111 and at least one additional lipid aggregating compound, where the additional lipid aggregating forming compound is selected from at least one of DOPE, DOPC or cholesterol.

119.(New) A composition comprising one or more compounds of any one of claims 12, 16, 21, 32, 38, 41, 46, 49, 55, 56, 64, 71, 75, 78, 85, 89 and 111 and at least one neutral lipid or at least one other cationic lipid.

120.(New) A composition comprising one or more compounds of any one of claims 12, 16, 21, 32, 38, 41, 46, 49, 55, 56, 64, 71, 75, 78, 85, 89 and 111 and at least one cationic lipid, where the cationic lipid is selected from the group consisting of DOSPA, DOTMA, DMRIE, DOTAP, DOGS and TM-TPS.

121.(New) A kit comprising one or more compounds of any one of claims 12, 16, 21, 32, 38, 41, 46, 49, 55, 56, 64, 71, 75, 78, 85, 89 and 111.

122.(New) A kit comprising one or more compounds of any one of claims 12, 16, 21, 32, 38, 41, 46, 49, 55, 56, 64, 71, 75, 78, 85, 89 and 111 and at least one additional lipid aggregating forming compound.

123.(New) A kit comprising one or more compounds of any one of claims 12, 16, 21, 32, 38, 41, 46, 49, 55, 56, 64, 71, 75, 78, 85, 89 and 111 and at least one additional lipid aggregating forming compound, where the additional lipid aggregating forming compound is selected from at least one of DOPE, DOPC or cholesterol.

124.(New) A kit comprising one or more compounds of any one of claims 12, 16, 21, 32, 38, 41, 46, 49, 55, 56, 64, 71, 75, 78, 85, 89 and 111 and at least one neutral lipid or at least one other cationic lipid.

125(New) A kit comprising one or more compounds of any one of claims 12, 16, 21, 32, 38, 41, 46, 49, 55, 56, 64, 71, 75, 78, 85, 89 and 111 and at least one other cationic lipid, where the cationic lipid is selected from the group consisting of DOSPA, DOTMA, DMRIE, DOTAP, DOGS and TM-TPS.

126.(New) A lipid aggregate comprising one or more compounds of any one of claims 12, 16, 21, 32, 38, 41, 46, 49, 55, 56, 64, 71, 75, 78, 85, 89 and 111 and at least one additional lipid aggregating forming compound.

127.(New) A lipid aggregate comprising one or more compounds of any one of claims 12, 16, 21, 32, 38, 41, 46, 49, 55, 56, 64, 71, 75, 78, 85, 89 and 111 and at least one additional lipid aggregating forming compound, where the additional lipid aggregating forming compound is selected from at least one of DOPE, DOPC or cholesterol.

128.(New) A lipid aggregate comprising one or more compounds of any one of claims 12, 16, 21, 32, 38, 41, 46, 49, 55, 56, 64, 71, 75, 78, 85, 89 and 111 and at least one neutral lipid or at least one other cationic lipid.

129.(New) A lipid aggregate comprising one or more compounds of any one of claims 12, 16, 21, 32, 38, 41, 46, 49, 55, 56, 64, 71, 75, 78, 85, 89 and 111 and at least one other cationic lipid, where the cationic lipid is selected from the group consisting of DOSPA, DOTMA, DMRIE, DOTAP, DOGS and TM-TPS.

130.(New) A kit comprising the lipid aggregate of claim 104.

131.(New) A kit comprising the lipid aggregate of claim 126.

132.(New) A kit comprising the lipid aggregate of claim 127.

133.(New) A kit comprising the lipid aggregate of claim 128.

134.(New) A kit comprising the lipid aggregate of claim 129.